

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in this Application.

Listing of Claims:

Claims 1-50, 53-87 and 90-96 (cancelled).

Claims 51, 52, 88 and 89 (allowed).

Claims 97-138 (new).

The above-listed claims are set forth in full on the following pages 3-14.

Claims as Currently Presented:

Claims 1-50 (cancelled).

Claim 51 (allowed). An apparatus for monitoring an animal which comprises: a stress measuring device for determining the stress of the animal, the stress measuring device comprising at least one of the following instruments selected from a group consisting of an infrared meter for measuring an infrared image of the animal, a hygrometer for measuring the humidity of the fur or the nose of the animal, an iris scanner for determining the eye characteristics of the animal, a smell or odor meter for determining the breath or body odor of the animal, a muscular tension measuring instrument for determining the muscular tension of the animal, an excrement analyzing instrument for determining the characteristics of the excrement of the animal, and a muscle vibration meter for determining the muscle vibrations of the animal; a central unit comprising stress measurement data and a correspondence table, said correspondence table containing for said animal stress related data, a comparing means for comparing said stress measurement data with the data in said correspondence table, and a program for providing on the basis of the comparison by the comparing means, an indication of the amount of stress of the animal, said program supplying a prognosis of stress behavior of said animal.

Claim 52 (allowed). An apparatus in accordance with Claim 51, which comprises at least two of said instruments, said central unit containing an algorithm for attributing a weighing factor to a particular stress measurement data for said at least two of said instruments.

Claims 53-87 (cancelled).

Claim 88 (allowed). An apparatus in accordance with Claim 51, which is further provided with an animal identification system.

Claim 89 (allowed). An apparatus in accordance with Claim 88, wherein said animal identification system is capable of being detected by a GPS-system.

Claims 90-96 (cancelled).

Claim 97 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said stress measuring device comprising an infrared meter for measuring an infrared image of said animal.

Claim 98 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said stress measuring device comprising a video camera for determining the position of parts of said animal consisting of said animal's ears, head or tail, or any combination thereof.

Claim 99 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally

associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said stress measuring device comprising a hygrometer for determining the humidity of the fur or the nose, or both, of said animal.

Claim 100 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said stress measuring device comprising a movement behavior meter consisting of a video camera, a step counter, a weighing floor, or a cow follower or any combination thereof for determining the movement behavior of said animal.

Claim 101 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said

stress measuring device comprising an eye meter consisting of a video camera or a scanner, or both, for determining the eye characteristics of said animal.

Claim 102 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before or during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said stress measuring device comprising a muscular tension measuring instrument consisting of a muscle contraction meter or a video camera, or both, for determining the muscular tension of said animal.

Claim 103 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before or during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said stress measuring device comprising a video camera for determining whether said animal has its tongue outside of its mouth.

Claim 104 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of

relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said stress measuring device comprising a blood analyzer for determining the concentration of blood components of said animal's blood.

Claim 105 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said stress measuring device comprising excrement analyzing instrument for determining the characteristics of said animal's excrement.

Claim 106 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said

stress measuring device comprising a muscular vibration meter for determining the muscular vibration of said animal.

Claim 107 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said stress measuring device comprising a transmitter for transmitting data from said device to said computer.

Claim 108 (new). An apparatus in accordance with Claim 107, wherein said stress measuring device is provided with a receiver for receiving a transmission order.

Claim 109 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said computer comprising a central unit and having a memory for processing said measurement, said central unit being provided with a reading means for reading said stress measuring device.

Claim 110 (new). An apparatus for use in the process of milking milk producing animals, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of each said animal before and during the milking process, a computer operationally associated with said device to which data of each said animal's degree of relatively momentary stress before and during milking of such animal are transmitted from said device and stored in said computer as a measurement of such animal's degree of relatively momentary stress experienced by such animal incidental to the milking process before and during milking, said computer comprising a central unit and having a memory for processing said measurement, said central unit comprising a correspondence table, said correspondence table containing for each said animal milked in said milking process stress related data including limit values, historical data, and tolerance ranges.

Claim 111 (new). An apparatus in accordance with Claim 110, wherein said control unit comprises a comparing device for comparing said measurement with the data in said correspondence table for comparing measurements obtained for each said animal in said milking process.

Claim 112 (new). An apparatus in accordance with Claim 111, wherein said computer is loaded with a program for providing, on the basis of the comparison of said comparing means, an indication about the amount of stress which has been experienced by each said animal.

Claim 113 (new). An apparatus in accordance with Claim 112, wherein said computer program provides a prognosis of each of said animals' stress behavior.

Claim 114 (new). An apparatus in accordance with Claim 113, comprising a plurality of stress measuring instruments, said computer containing an algorithm for attributing a weighing factor to a particular said measurement.

Claim 115 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, said computer comprising a central unit and having a memory for processing said measurement, and being provided with a single issuing device for issuing a signal after receipt and processing of said measurement.

Claim 116 (new). An apparatus in accordance with Claim 115, wherein said signal is displayed on a screen which provides information about the stress behavior of said animal.

Claim 117 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of said animal's degree of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking, the apparatus further comprising an animal identification system, said animal identification system being detected by a GPS-system.

Claim 118 (new). A milking process for the milking of a milk producing animal which comprises the step of measuring the degree of relatively momentary stress of said animal before

or during the milking of said animal which affects the yield or quality of milk produced by said animal during said milking and transmitting said measurements to a computer memory as data relative to the yield and quality of milk that it is expected said animal will produce when it experiences said relatively momentary stress during or before it is milked, and further comprising the step of automatically effecting a procedure on said animal which has an effect on said degree of relatively momentary stress of said animal to increase the yield and quality of milk produced by said animal.

Claim 119 (new). A milking process for the milking of a milk producing animal which comprises the step of measuring the degree of relatively momentary stress of said animal before or during the milking of said animal which affects the yield or quality of milk produced by said animal during said milking and transmitting said measurement to a computer memory as data relative to the yield and quality of milk which it is expected said animal will produce when it experiences said relatively momentary stress during or before it is milked, and the step of performing an automatic animal related procedure on said animal based on said stress measurement data of said animal.

Claim 120 (new). A milking process for the milking of a milk producing animal which comprises the step of measuring the degree of relatively momentary stress of said animal before or during the milking of said animal which affects the yield or quality of milk produced by said animal during said milking and transmitting said measurement to a computer memory as data relative to the yield and quality of milk which it is expected said animal will produce when it experiences said relatively momentary stress during or before it is milked, the step of measuring the degree of relatively momentary stress of said animal comprising making an infrared image of said animal.

Claim 121 (new). An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device comprising at least two separate sensors that determine the degree of relatively momentary stress of said animal before and during the milking process, one of said sensors being at a milking compartment in which said animal is milked and the other sensing the existence of relatively momentary stress at a location remote from said milking compartment, a computer operationally associated with said device to which data of said animal's degrees of relatively momentary stress before and during milking of the animal are transmitted from said device and stored in said computer as measurements of the animal's degrees of relatively momentary stress experienced by the animal incidental to the milking process before and during milking.

Claim 122 (new). An apparatus in accordance with Claim 121, comprising a further sensor suitable for measuring and storing stress measurement data in said computer after the milking of said animal.

Claim 123 (new). An apparatus in accordance with Claim 121, which comprises means for determining milk related data which are transmitted to said computer and stored therein for each milking of said animal.

Claim 124 (new). An apparatus in accordance with Claim 123, wherein said animal's udder has four milk quarters and said means for determining milk related data includes further means for determining the milk flow from each milk quarter of said animal during the milking of said animal.

Claim 125 (new). An apparatus in accordance with Claim 121, comprising an animal identification system, a memory of said computer being adapted to contain for each animal

milked by said milking process data relating to the relatively momentary stress experienced by each animal before and during the milking process.

Claim 126 (new). An apparatus in accordance with Claim 121, wherein said stress measuring device comprises a smell or odor meter for determining the breath or body odor of said animal.

Claim 127 (new). An apparatus in accordance with Claim 121, wherein said stress measuring device comprises a heartbeat meter for determining the heartbeat of the animal.

Claim 128 (new). An apparatus in accordance with Claim 121, wherein said stress measuring device comprising a thermometer for determining the temperature of said animal.

Claim 129 (new). An apparatus in accordance with Claim 121, wherein said milking compartment consists of a foremilking compartment, a cleaning compartment or a post-treating compartment or any combination thereof.

Claim 130 (new). An apparatus in accordance with Claim 121, wherein said milking compartment comprises a milking robot.

Claim 131 (new). An apparatus in accordance with Claim 121, wherein said stress measuring device comprises a buffer memory for containing a number of measurement data.

Claim 132 (new). An apparatus in accordance with Claim 121, wherein said computer comprises a central unit and having a memory for processing said measurement.

Claim 133 (new). An apparatus in accordance with Claim 121, and further comprising an animal identification system.

Claim 134 (new). An apparatus in accordance with Claim 121, wherein said stress measuring device provides a signal to an alarm means on the basis of the measured stress of said animal.

Claim 135 (new). A milking process for the milking of a milk producing animal which comprises the step of measuring the stress experienced by said animal shortly before said milking and again while said animal is being milked to determine the degree of relatively momentary stress of said animal caused by the anticipation of being milked and the actual milking of said animal, measuring the yield or quality of milk produced by said animal during said milking and transmitting data of said measurements to a computer memory to learn how the yield or quality of milk from said animal is affected by said relatively momentary stresses as measured during and before it is milked.

Claim 136 (new). A process in accordance with Claim 135, wherein a step of measuring the degree of relatively momentary stress of said animal is also carried out after said milking.

Claim 137 (new). A method in accordance with Claim 135, which comprises the step of storing said degrees of relatively momentary stresses in said computer memory.

Claim 138 (new). A process in accordance with Claim 135, which comprises a step of determining other milk related data provided during said milking of said animal which are suitable for storing with said relatively momentary stress measurements data in said computer memory and storing said other milk related data therewith.